

ABSTRACT OF THE DISCLOSURE

Consider a set of functions, each of whose calculations are almost identical. A common example is the set of trigonometric functions sine, cosine, and tangent. Each of these functions is computed by first performing argument reduction and some preliminary calculations, which are identical for all members of the set. A few unique instructions are performed at the end for each of the functions in the set. Normally, when such functions are encountered, a separate sequence of instructions is called for each function even if the functions appear in close proximity. This results in duplicate instructions being performed which increases execution time and length of compiled program. Specialized functions exist to minimize execution, but programs with such specialized function calls suffer from non-portability. The present invention includes a method and a system to optimize function calls for faster execution while maintaining portability. The present invention requires no specialized knowledge on the part of the programmer and also utilizes standard compiler optimization techniques.